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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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CANADA

EXAMINER

KENDALL, CHUCK O

ART UNIT

PAPER NUMBER

2122

DATE MAILED: 04/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

09/803,016

Applicant(s)

GUILBEAULT ET AL.

Examiner

Chuck O Kendall

Art Unit

2122

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. This action is in response to the application filed 03/12/01.
2. Claims 1 – 26, have been examined.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 7 – 9, & 19 - 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Imai et al. USPN 5,257,369 (hereinafter "Imai").

Regarding claims 1, 21 & 22, Imai discloses a computer readable storage medium containing a program element for execution by a computing device to implement a software installation manager in a data network including a set of nodes, the set of nodes having a topology characterized in that a message directed from a first node of the set to a third node of the set passes through a second node of the set, said software installation manager including:

- a) a control entity (FIG.1, 1d);
- b) an I/O for the exchange of messages between said control entity and the plurality of nodes (FIG.3, 34 –1, 34 – n );
- c) said control entity operative to perform a software product installation, process, said software product installation process including generation of messages directed to the nodes of the set for causing installation of at least one software product on the nodes of the set in parallel according to a non-blocking sequence (6:42 – 44, see whether should be installed i.e. *non-blocking*); and

d) the non-blocking sequence being characterized in that installation of the at least one software product on one node of the set does not block installation of the software product on another node of the set (see 6:32 – 35 which shows it being done on a network i.e. plurality of nodes also see, 6: 42 - 47, see determines in sequence whether to install, and 6: 60 – 62, for if configuration agrees).

Regarding claim 2, a computer readable storage medium as defined in claim 1, wherein said control entity includes a node sequencing entity for dynamically determining the non-blocking sequence (6: 42 – 47, see determines in sequence whether to install, i.e. *dynamically determining*).

Regarding claim 7, a computer readable storage medium as defined in claim 2, wherein said control entity includes a message generation entity in communication with said node sequencing entity, said message generation entity being responsive to data produced by said node sequencing entity and being indicative of the non-blocking sequence (6: 42), to issue at least some messages to nodes of the set according to an order determined by the non-blocking sequence (6: 42 – 57).

Regarding claim 8, a computer readable storage medium as defined in claim 2, wherein the messages convey commands for execution by the nodes of the set (FIG.6, 122, shows an installation unit for execute, also see associated text).

Regarding claim 9, a computer readable storage medium as defined in claim 8, wherein the messages convey a first command for instructing each node in the set to fetch a catalogue of files from a file server in the data network (FIG.6, 121, and associated text, for instance 3: 5 – 10).

Regarding claim 19, a computer readable storage medium as defined in claim 1, wherein said, control entity is responsive to messages issued by a network manager entity to initiate said software product installation process (Imai, FIG. 4).

Regarding claim 20, a computer readable storage medium as defined in claim 19, wherein said control entity is operative to generate a log indicative of the nodes of the set on which the installation of the at least one software product has failed and to generate messages directed to the network manager conveying the log to the network manager (Imai, 10: 10 – 15, for *failed* see error).

Regarding claim 23, the method version of claim 1, see rationale as previously discussed above.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 3 – 6 & 10 – 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Imai et al. USPN 5,257,369 (hereinafter “Imai”) as applied in claim 2 above, in view of Skeen et al. USPN 5,257,369 (hereinafter “Skeen”).

Regarding claim 3, Imai teaches all the claimed limitations as applied in claim 1 above. Imai doesn't explicitly disclose node sequencing entity is responsive at least in part to data indicative of a number of communication hops between a point of reference and each node of the set to derive the non-blocking sequence. However, Skeen does disclose this functionality in an analogous art (47:37 – 45). Therefore, it would have been obvious to one of ordinary skills in the art at the time the invention was made to combine Imai and Skeen because, knowing the number of hops (links or nodes or terminals) during information transmission makes disseminating information more efficient.

Regarding claim 4, a computer readable storage medium as defined in claim 3, Skeen further discloses wherein said node sequencing entity is operative to issue a query message to each node of the set to prompt the node to generate a response message indicative of the number of communication hops between the point of

reference and the node (Skeen, 50: 1 – 30, see subscription request, which is the number of subscriber, which in turn translates to number of hops or nodes).

Regarding claim 5, a computer readable storage medium as defined in claim 4, Skeen further discloses wherein the data indicative of the number of communication hops between the point of reference and each node of the set is derived from response messages received by node sequencing entity from each node of the set (Skeen, 50: 1 – 5, see subscribing processes, as understood by examiner each node makes a request).

Regarding claim 6, Imai discloses all the claimed limitations as applied in claim 5 above. Imai doesn't explicitly disclose a computer readable storage medium as defined in claim 5, wherein the point of reference is a location of a file server in the data network holding at least one software load downloaded by the nodes of the set to perform the installation of the at least one software product. However, Skeen does disclose this feature in an analogous art (50: 15 – 25, see service layer). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made because, providing a point or reference from where the information is processed would make the system more manageable.

Regarding claim 10, Imai discloses all the claimed limitations as applied in claim 10 above. Imai doesn't explicitly disclose a second command for instructing each node in the set to fetch files from the catalogue of files from the file server in the data network. However, Skeen does disclose this functionality in an analogous art (FIGURE 19A, 400, also see FIGURE 22A, 522 and associated text). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Imai and Skeen because, transmitting request during installation or program loading is a general practice in the art and provides files on a needed basis.

Regarding claim 11, a computer readable storage medium as defined in claim 10, wherein the messages convey a third command for instructing each node to activate the at least one software product (Imai, 6:40 – 43).

Regarding claim 12, a computer readable storage medium as defined in claim 11, wherein the messages convey a fourth command for instructing each node to commit to the at least one software product (Imai, 6:43 – 46).

Regarding claim 13, a computer readable storage medium as defined in claim 11, wherein said control entity is operative to issue messages conveying the third command according to the non-blocking sequence determined by the node sequencing entity (6: 42 - 47, see determines in sequence whether to install, for *non-blocking*).

7. Claim 14 – 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Imai et al. USPN 5,257,369 (hereinafter “Imai”) as applied in claim 13 above, in view of Skeen et al. USPN 5,257,369 (hereinafter “Skeen”) and further in view of Owens et al. USPN 5,555,416 (hereinafter “Owens”).

Regarding claim 14, Imai as modified by Skeen discloses all the claimed limitations as applied in claim 13 above. The combination of Imai and Skeen does not wherein the third command causes each node of the set of nodes to reboot. However, Owens discloses this functionality in an analogous art (7: 50 – 55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Imai and Skeen with Owens because, rebooting during installation and software loading is a general practice and helps initialize the computer with the installed software.

Regarding claim 15, a computer readable storage medium as defined in claim 14, wherein said control entity awaits a confirmation of a node in the set of nodes acknowledging reception of the third command before sending the third command to a next node in the set of nodes according to the non-blocking sequence (Imai, 9: 44 – 46, for *confirmation* see “status... while being carried out”).

Regarding claim 16, a computer readable storage medium as defined in claim 13, wherein said control entity is operative to track progress of the installation of the at least one software product on each node of the set (Imai, 9: 44 – 46, for *tracking progress* see “status of installation”).

Regarding claim 17, a computer readable storage medium as defined in claim 16, wherein said control entity is operative to generate a log indicative of the nodes of

the set on which the installation of the at least one software product has failed (Imai, 10: 10 – 15, for *failed* see error).

Regarding claim 18, a computer readable storage medium as defined in claim 17, wherein the log indicates for each node of the set on which the installation has failed, the reason for the failure (Imai, 10: 15 – 17, for *reason* see error in either installation operation or rewrite process).

8. Claim 24 – 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Imai et al. USPN 5,257,369 (hereinafter “Imai”) in view of Owens et al. USPN 5,555,416 (hereinafter “Owens”).

Regarding claim 24, Imai discloses a computer readable storage medium containing a program element for execution by a computing device to implement a software installation manager in a data network including a set of nodes, the set of nodes having a topology characterized in that a message directed from a first node of the set to a third node of the set passes through a second node of the set, said software installation manager including:

- a) a control entity (FIG.1, 1d);
- b) an I/O for the exchange of messages between said control entity and the plurality of nodes (FIG.3, 34 –1, 34 – n );
- c) said control entity operative to perform a software product installation process, said software product installation process including generation of messages directed to the nodes of the set for causing installation of at least one software product on the nodes in several stages (6:42 – 44, see whether should be installed i.e. *non-blocking*);

- e) said software product installation process including generation of messages directed at the nodes of the set according to a non-blocking sequence (6:42 – 44, see whether should be installed i.e. *non-blocking*). Imai doesn't explicitly disclose command for rebooting of nodes. However, Owens does disclose this in an analogous art (7: 50 – 55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Imai and Skeen with Owens because, rebooting



during installation and software loading is a general practice and helps initialize the computer with the installed software.

Regarding claim 25, a computer readable storage medium as defined in claim 24, Owens further discloses wherein said software product installation process including generation of messages directed at the nodes of the set according to a non-blocking sequence commanding all nodes of the set to perform coincident rebooting (Owens, 7: 50 – 55).

Regarding claim 26, a computer readable storage medium as defined in claim 25, wherein said control entity includes a node sequencing entity for dynamically determining the non-blocking sequence (Imai, 6: 42 – 47, see determines in sequence whether to install, i.e. *dynamically determining*).

**Correspondence Information**

9. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Chuck O. Kendall who may be reached via telephone at (703) 308-6608. The examiner can normally be reached Monday through Friday between 8:00 A.M. and 5:00 P.M. est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam *can be reached* at (703) 305-4552.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

For facsimile (fax) send to central FAX number 703-872-9306 and 703-7467240 draft.

**WEI Y. ZHEN**  
**PRIMARY PATENT EXAMINER**

*Chuck O. Kendall*

*Software Engineer Patent Examiner*

*United States Department of Commerce*

